

CLAIMS

1. A method for electronically monitoring the contents of a print job generated from print data, comprising:

analyzing the print data to build statistical information about content within the print data; and

categorizing the print job using the statistical information according to pre-specified categorization criteria.

2. The method of claim 1, wherein the analyzing the print data to build statistical information is incorporated in a printer driver.

3. The method of claim 2, wherein at least a portion of the printer driver is a software printer driver.

4. The method of claim 2, wherein at least a portion of the printer driver is a firmware printer driver.

5. The method of claim 1, further comprising storing the classification in a log file.

6. The method of claim 5, further comprising using the categorization information from the log file for examination, building, enhancing and verifying future categorization matches.

7. The method of claim 1, further comprising gathering input criteria from a user before a print job is initiated and categorizing the print job based on the statistical analysis and the input criteria.

8. The method of claim 1, further comprising:
classifying the print job as an unknown job type if the categorizing is unsuccessful.

9. The method of claim 8, wherein the categorizing at least one

print job category associated with the print job, further comprising:
 performing an action based on the at least one print job
 category.

5 10. The method of claim 9, wherein the action is selected from a
 group consisting of alerting an administrator, providing control to the
 administrator, printing the print job, and inhibiting printing of the print job.

10 11. The method of claim 9, wherein at least one print category is an
 unknown print job type.

15 12. The method of claim 5, further including:
 processing the log file so as to determine effectiveness of the
 categorizing; and
 updating the pre-specified categorization criteria so as to
 improve the effectiveness of the categorizing.

20 13. The method of claim 12, further including:
 developing at least one new categorization category.

 14. The method of claim 5, further including:
 processing the log file so as to characterize printing usage.

25 15. The method of claim 1, wherein analyzing the print data
 includes sorting page content by drawing commands, grouping drawing
 command collections into pre-determined object types, and differentiating
 between a first drawing style and a second drawing style.

30 16. The method of claim 1, wherein analyzing and categorizing are
 performed before the print job is printed.

17. A system for managing printing operations on a computer, comprising:

a statistical module that collects drawing commands and collapses the collected drawing commands into pre-determined classifications; and

a filtering module coupled to the statistical module that filters the pre-determined classifications using pre specified category criteria and categorizes the print job into at least one predefined print job category.

18. The system for managing printing operations of claim 17, further comprising a secondary filter module that uses the pre-determined classifications and input criteria predefined by a user and relating to the printing operation for categorizing the print job.

19. The system for managing printing operations of claim 17, wherein the drawings commands include at least one of vector graphics, raster graphics or textual fonts and are predefined by an administrator.

20. The system for managing printing operations of claim 17, wherein the statistical module is incorporated in a software printer driver.

21. The system for managing printing operations of claim 17, further comprising a client monitoring program that determines whether a new classification category needs to be developed.

22. The system for managing printing operations of claim 21, wherein the client monitoring program is preprogrammed to send an error message to a user attempting to initiate the print job blocking all print jobs that are classified with unknown designations.

23. In a system for electronically monitoring the contents of a print job generated from print data, a computer-readable medium having computer-executable instructions for performing a process on a computer, the process

comprising:

statistically analyzing the print data to form object type percentages using drawing command information;

classifying the print job using the statistical analysis and according to pre-specified categorization criteria; and

storing the classification in a log file and using the classification from the log file for examination and for building, enhancing and verifying future classification matches.

24. The computer-readable medium having computer-executable instructions for performing the process of claim 23, further comprising gathering input criteria from a user before a print job is initiated and classifying the print job based on the statistical analysis and the input criteria.

25. The computer-readable medium having computer-executable instructions for performing the process of claim 24, further comprising monitoring all print jobs and providing at least one of an automatic rejection, acceptance or confirmation of the print job as user feedback before the print job is sent to peripheral device.

26. The computer-readable medium having computer-executable instructions for performing the process of claim 25, further comprising developing new classification categories based on the monitoring of the print jobs.

27. A system for managing print jobs of documents containing at least one page, comprising:

means for collecting drawing commands for a given page;
means for collapsing the collected drawing commands into pre-determined categories; and
means for classifying the print job using the pre-determined classifications.

28. A printing system working in a computer environment,
comprising:

an application program that generates print data for a print job;
a printer that receives the print data for printing the print jobs;
a software printer driver coupled to the printer and application
program for analyzing the print data to build statistical information about
content within the print data; and
a filter module coupled to the software printer driver for
categorizing the print job using the statistical information according to pre-
specified categorization criteria.

29. The printing system of claim 28, further comprising a log file that
stores the categorization of the print job.

30. The printing system of claim 28, wherein the categorization
information from the log file is used for examination, building, enhancing and
verifying future categorization matches.

31. The printing system of claim 28, wherein the application
program gathers input criteria from a user before a print job is initiated and
categorizes the print job based on the statistical analysis and the input
criteria.

32. The printing system of claim 28, further comprising a client
monitoring program that approves the print job and allows the print job to be
printed.

33. A method for managing print jobs of documents containing at
least one page, comprising:

collecting drawing commands for a given page;
collapsing the collected drawing commands into pre-determined
categories; and
classifying the print job using the pre-determined classifications.

34. The method of claim 33, wherein the collecting includes counting arc, rectangle, brush pattern and text out commands.

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35. The method of claim 34, wherein the pre-determined classifications include text, at least one of solid or unfilled circle line/graphics, clip art style images, and photographic images.

10